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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/718,155	11/21/2000	Koji Hayashi	10449-026001	8730
26161	7590	03/10/2004	EXAMINER	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			LE, KIMLIEN T	
			ART UNIT	PAPER NUMBER
			2653	
			DATE MAILED: 03/10/2004	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/718,155

Applicant(s)

HAYASHI, KOJI

Examiner

Kimlien T Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsukihashi (U.S. Patent 6,584,053)

Regarding claim 1, see Figs. 1 and 2 of Tsukihashi which show a controller for controlling interruption and restarting data writing to a recording medium, wherein the data writing is performed by emitting a laser beam against the recording medium at a write level that is used when data read from a buffer memory is recorded on the recording medium, the controller comprising: an address memory (Fig. 1, element 15a; See also column 5, lines 55-60) for storing at least one of an address of the recording medium and an address of the buffer memory when the writing of data to the recording medium is interrupted, each address indicating a data location where the writing interruption occurred; a synchronizing circuit (Fig. 1, element 20; See also column 4, lines 1-10) for reading the data written to the recording medium prior to the interruption by emitting the laser beam at a read level, reading the data stored in the buffer

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memory, and synchronizing the written data and the stored data; and a restart circuit (Fig. 1, element 18; See also column 7, lines 20-35) for restarting the data writing based on the address stored in the address memory, wherein the restart circuit switches the laser beam from the read level to the write level before the restart circuit restarts the data writing.

Regarding claim 2, see Figs. 1 and 2 of Tsukihashi which show the controller according to claim 1, further comprising a level memory (Fig. 1, element 13; See column 6, lines 4-10) for storing data of the write level that exists when data writing is interrupted, wherein the level of the laser beam when writing is restarted is in accordance with the data stored in the level memory.

Regarding claim 3, see Figs. 1 and 2 of Tsukihashi which show the controller according to claim 1, wherein the laser beam is switched from the read level to the write level when any one of an address of the data read from the recording medium and an address of the data read from the buffer memory matches an address preceding the address stored in the address memory by a predetermined number of addresses (column 5, lines 1-50).

Regarding claim 4, see Figs. 1 and 2 of Tsukihashi which show the controller for controlling interruption and restarting data writing to a recording medium, wherein the data writing is performed by emitting a laser beam against the recording medium in accordance with data read from a buffer memory, the controller comprising: an address memory (Fig. 1, element 15a; See also column 5, lines 55-60) for storing at least one of an address of the recording medium and an address of the buffer memory when the writing of data to the recording medium is interrupted, each address indicating a location of data when the writing interruption occurred; a synchronizing circuit (Fig. 1, element 20; See also column 4, lines 1-10) for reading the data written to the recording medium prior to the interruption by emitting the laser beam,

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reading the data stored in the buffer memory, and synchronizing the written data and the stored data; and a restart circuit (Fig. 1, element 18; See also column 7, lines 20-35) for generating an instruction for restarting the writing of data to the recording medium based on the address stored in the address memory, wherein the restart circuit generates the instruction for restarting the writing of data before the data read from the recording medium by the synchronizing circuit reaches the interruption location.

Regarding claim 5, see Figs. 1 and 2 of Tsukihashi which show the controller according to claim 4, wherein the laser beam is emitted against the recording medium at a first power level during the writing of data and is emitted against the recording medium at a second power level during the reading of data by the synchronizing circuit, the second power level being lower than the first power level, and wherein the restart circuit provides time for the laser beam to shift from the second power level to the first power level when generating the instruction for restarting the writing of data(column 7, lines 1-45).

Regarding claim 6, see Figs. 1 and 2 of Tsukihashi which show the controller according to claim 4, further comprising a level memory (Fig. 1, element 13; See column 6, lines 4-10) for storing data representing the power level of the laser beam that exists when the writing of data is interrupted, wherein the laser beam is emitted at a power level that is in accordance with the data stored in the level memory when writing is restarted (column 7, lines 1-45).

Regarding claim 7, see Figs. 1 and 2 of Tsukihashi which show the controller according to claim 4, further comprising a power source(Fig. 1, element 14; See column 5, lines 10-40) for supplying the optical head with power to generate the laser beam, wherein the power source is activated simultaneously with the generation of the instruction for restarting the writing of data.

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Regarding claim 8, see Figs. 1 and 2 of Tsukihashi I which show a controller for controlling interruption and restarting data writing to a recording medium, wherein the data writing is performed by emitting a laser beam against the recording medium with a power that is in accordance with data read from a buffer memory and supplied from a power source, the controller comprising: an address memory (Fig. 1, element 15a; See also column 5, lines 55-60) for storing at least one of an address of the recording medium and an address of the buffer memory when the writing of data to the recording medium is interrupted, each address indicating a data location where the writing interruption occurred; a synchronizing circuit (Fig. 1, element 20; See also column 4, lines 1-10) for reading the data written to the recording medium prior to the interruption by emitting the laser beam, reading the data stored in the buffer memory, and synchronizing the written data and the stored data; and a restart circuit (Fig. 1, element 18; See also column 7, lines 20-35) for restarting data writing based on the address stored in the address memory, wherein the power source is activated prior to the time when the writing of data is restarted.

Regarding claim 9, see Figs. 1 and 2 of Tsukihashi which show the controller according to claim 8, further comprising a level memory for storing data of the power level that exists when data writing is interrupted, wherein the power level of the laser beam when writing is restarted is in accordance with the data stored in the level memory(column 5, lines 10-15; column 7, lines 1-45).

Regarding claim 10, see Figs. 1 and 2 of Tsukihashi which show the data recorder according to claim 8, wherein the power source (Fig. 1, element 14; See column 5, lines 10-40) is activated when any one of an address of the data read from the recording medium and an

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address of the data read from the buffer memory matches an address preceding the address stored in the address memory by a predetermined number of addresses.

Regarding claim 11, see Figs. 1 and 2 of Tsukihashi which show a method for controlling interruption and restarting of writing data to a recording medium, wherein the data writing is performed by emitting a laser beam against the recording medium at a write level that is in accordance with data read from a buffer memory, the method comprising: storing at least one of an address of the recording medium and an address of the buffer memory when the writing of data to the recording medium is interrupted, each address indicating a data location where the writing interruption occurred; reading the data written to the recording medium prior to the writing interruption by emitting the read level laser beam against the recording medium and reading the data stored in the buffer memory; synchronizing the written data and the stored data; generating an instruction for restarting data writing to the recording medium based on the address stored in the address memory; and shifting the laser beam from the read level to the write level before writing is restarted (column7, lines 1-45).

Regarding claim 12, see Figs. 1 and 2 of Tsukihashi which show a method for controlling interruption and restarting of data writing to a recording medium, wherein the data writing is performed by emitting a laser beam against the recording medium in accordance with data read from a buffer memory, the method comprising: storing at least one of an address of the recording medium and an address of the buffer memory when the writing of data to the recording medium is interrupted, each address indicating a data location where the writing interruption occurred; reading the data written to the recording medium prior to the writing interruption by emitting the laser beam against the recording medium and reading the data stored in

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the buffer memory; synchronizing the written data and the stored data; and generating an instruction for restarting data writing based on the address stored in the address memory, wherein the writing is restarted before the location of the data read from the recording medium in the reading step reaches the interruption location(column 2, lines 1-50).

Regarding claim 13, see Figs. 1 and 2 of Tsukihashi which show a method for controlling interruption and restarting data writing to a recording medium, wherein the data writing is performed by emitting a laser beam against the recording medium at a power level that is in accordance with data read from a buffer memory and supplied from a power source, the method comprising: storing at least one of an address of the recording medium and an address of the buffer memory when the writing of data to the recording medium is interrupted, each address indicating a data location where the writing interruption occurred; reading the data written to the recording medium prior to the writing interruption by emitting the laser beam and reading the data stored in the buffer memory; synchronizing the written data and the stored data; generating an instruction for restarting the writing of data to the recording medium based on the address stored in the address memory; and activating a power source for generating power of the laser beam prior to the restart of the writing of data (column 2, lines 1-50).

Cited References

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references are all related to a controller for data recorder.

Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimlien T Le whose telephone number is 703 305 3498. The examiner can normally be reached on M-F 8a.m-5p.m

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 703 305 6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kimlien Le
March 5, 2004



**TAN DINH
PRIMARY EXAMINER**